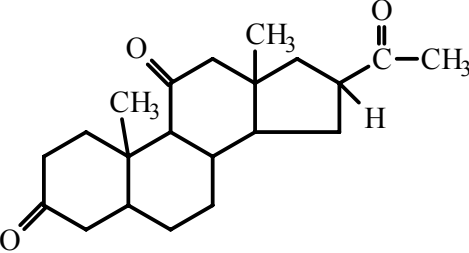
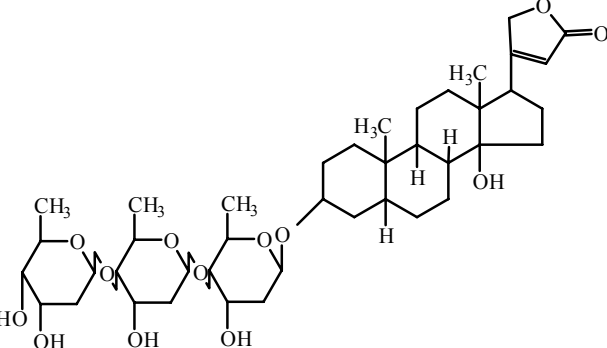
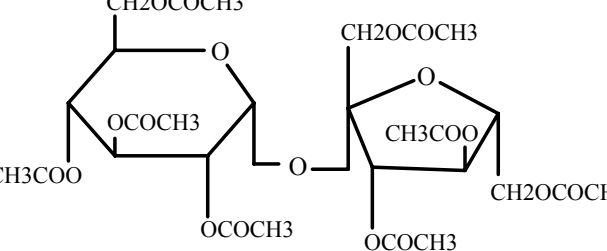
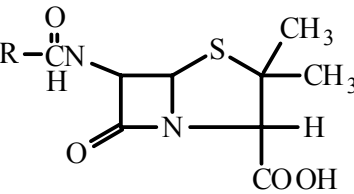
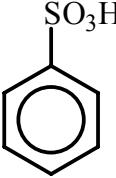
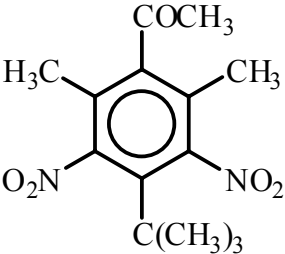
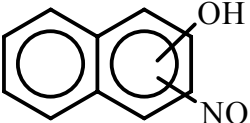


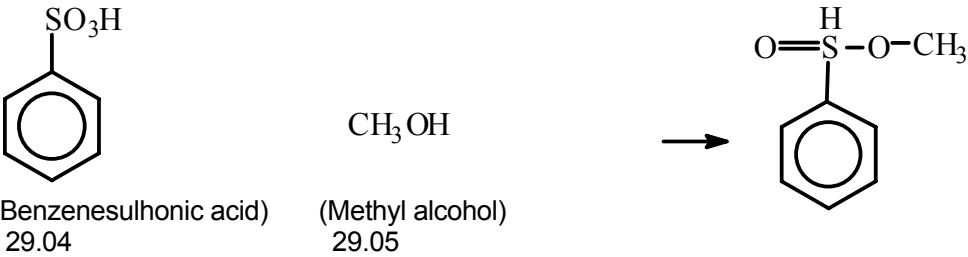
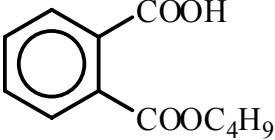
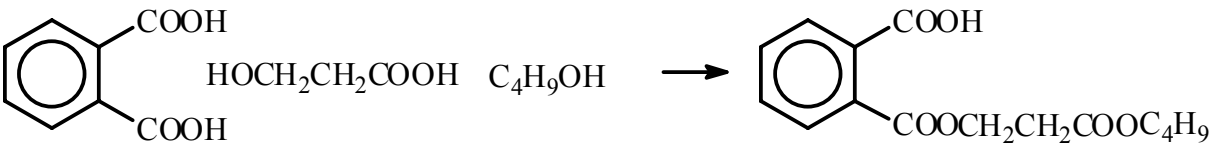
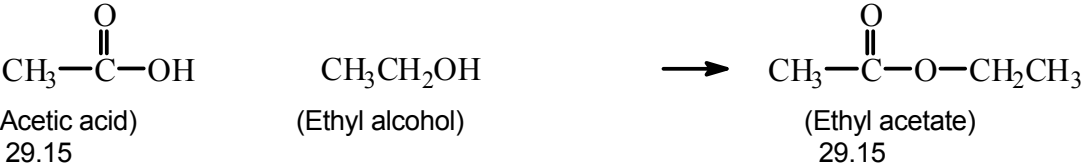
**Draft list of Chemical structures to be included in the Explanatory Notes to Chapter 29**

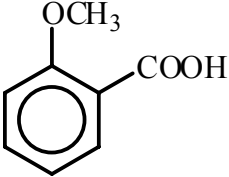
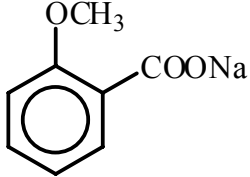
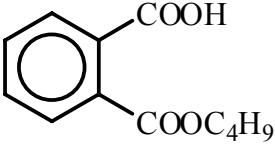
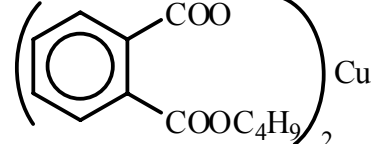
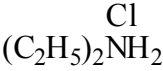
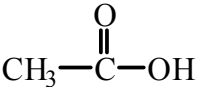
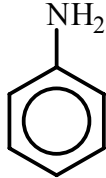
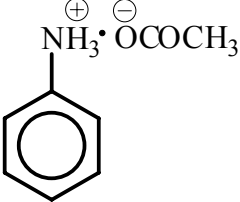
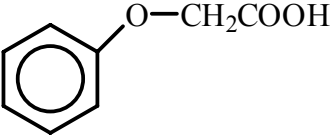
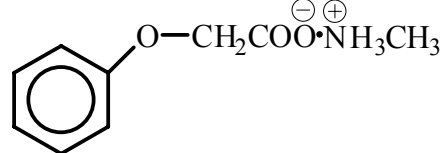
Row No.	Page	Heading	Paragraph	Name in HS-ENS	Chemical Structure
1		<b>General</b>	<b>(A)</b>	<b>Chemically defined compounds</b>	
2	343			Mixtures of isomers of the same organic compound (e.g., o-Xylene, m-Xylene, p-Xylene)	
3			<b>(B)</b>	<b>Distinction between the compounds of Chapter 28 and those of Chapter 29</b>	
4				Part (B) of General Explanatory Note to Chapter 28	
5				Heading 28.11 - Oxides of carbon (Carbon dioxide)	CO <sub>2</sub>
6				Heading 28.11 - Hydrogen cyanide	HCN
7				Heading 28.11 - Isocyanic acid	HCNO
8				Heading 28.11 - Fulminic acid	HONC
9				Heading 28.11 - Thiocyanic acid	HSCN
10				Heading 28.12 - Halide oxides of carbon (Carbon chloride oxide)	COCl <sub>2</sub>
11				Heading 28.13 - Carbon disulphide	CS <sub>2</sub>
12				Heading 28.36 - Peroxocarbonates of inorganic bases (Sodium peroxocarbonate)	NaCO <sub>4</sub>
13				Heading 28.43 - Organic compounds of precious to metal 28.46 (Silver acetate)	$\text{Ag}(\text{O}-\overset{\text{O}}{\underset{\cdot\cdot}{\text{C}}}-\text{CH}_3)_2$

14				Heading 28.43 - Organic compounds of radioactive to elements and radioactive isotopes 28.46 (Uranium acetate)	$U(O-\overset{\overset{O}{\parallel}}{C}-CH_3)_2$
15				Heading 28.49 - Carbide (Calcium carbide)	$CaC_2$
16			(C)	<b>Products which remain classified in Chapter 29, even when they are not separate chemically defined compounds</b>	
17	343			Heading 29.09 - Ketone peroxides	$  \begin{array}{ccc}  R & & R \\  \diagdown & & / \\  & C=O^+-\bar{O} & R^+-C-O-\bar{O} \\  / & & \diagdown \\  R & & R  \end{array}  \quad  \begin{array}{c}  R \\    \\  R-C-O-\dot{O}  \end{array}  $
18				Heading 29.12 - Cyclic polymers of aldehydes; (Paraformaldehyde)	$  \begin{array}{c}  H \\    \\  (-C-O)_n \\    \\  H  \end{array}  $
19				Heading 29.19 - Lactophosphates (Calcium lactophosphate)	$  \begin{array}{c}  H \quad O \\    \quad    \\  H_3C-C-C-OPO_3Ca \\    \\  OH  \end{array}  $
20				Heading 29.23 - Lecithins and other phosphoaminolipids (Lecithin)	$  \begin{array}{c}  CH_2OCOR \\    \\  RCOO-C \\    \\  H_2C-O-P(=O)(O^-)-OCH_2CH_2N^+(CH_3)_3  \end{array}  $
21	344			Heading 29.36 - Provitamins and vitamins (Provitamin D <sub>4</sub> )	

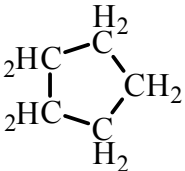
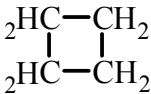
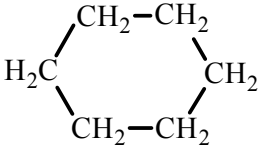
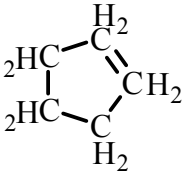
22		<p>Heading 29.37 - Hormones (Hydrocortisone)</p>	 <p>The structure shows a steroid nucleus with a ketone group at C3, a methyl group at C10, a methyl group at C13, and a hydroxyl group at C14. At C17, there is a side chain consisting of a ketone group and an ethyl group, forming a 17-acetyl side chain.</p>
23		<p>Heading 29.38 - Glycosides and their derivatives (Digitoxin)</p>	 <p>The structure shows a digitoxin molecule, which consists of a digitoxigenin aglycone linked to three glucose units. The aglycone has methyl groups at C13 and C14, and a butyrate ester group at C28.</p>
24		<p>Heading 29.40 - Sugar ethers and sugar esters, and their salts (Sucrose octa-acetate)</p>	 <p>The structure shows sucrose octa-acetate, where all eight hydroxyl groups of sucrose are acetylated. The acetyl groups are shown as CH<sub>3</sub>COO- attached to the respective carbon atoms on both the glucose and fructose rings.</p>
25		<p>Heading 29.41 - Antibiotics (Penicillin)</p>	 <p>The structure shows the penam nucleus of penicillin, which is a fused bicyclic system consisting of a five-membered beta-lactam ring and a four-membered thiazolidine ring. It features a variable side chain (R) on the nitrogen of the beta-lactam ring, a methyl group on the sulfur atom, and a methyl group and a carboxylic acid group on the thiazolidine ring.</p>
26			

27	345	(F)		<b>Halogenated, sulphonated, nitrated or nitrosated derivatives and combinations thereof</b>		
28				Chloropropanol (2905.50)	$  \begin{array}{c}  \text{H} \quad \text{H} \quad \text{Cl} \\    \quad   \quad   \\  \text{H}-\text{C}-\text{C}-\text{C}-\text{OH} \\    \quad   \quad   \\  \text{H} \quad \text{H} \quad \text{H}  \end{array}  $	
29				Benzenesulphonic acid (2904.10)		
30				Ketone musk (2914.70)		
31				Nitrosonaphthols (2908.90)		
32		(G)		<b>Classification of esters, salts and certain halides</b>		
33			(1)	Ester		
34	345		(a)	$  \begin{array}{c}  \text{O} \\     \\  \text{CH}_3-\text{C}-\text{OH} \\  \text{(Acetic acid)} \\  29.15  \end{array}  $	$  \begin{array}{c}  \text{HO}-\text{CH}_2 \\    \\  \text{HO}-\text{CH}_2 \\  \text{(Diethylene glycol)} \\  29.09  \end{array}  $	$  \begin{array}{c}  \text{O} \\     \\  \text{CH}_3-\text{C}-\text{OCH}_3 \\    \\  \text{CH}_3-\text{C}-\text{OCH}_3 \\     \\  \text{O}  \end{array}  $

35			(b)	<p style="text-align: right;">(Diethylene glycol acetate) 29.15</p>  <p>(Benzenesulphonic acid) 29.04      (Methyl alcohol) 29.05</p> <p style="text-align: right;">(Methyl benzenesulphonate) 29.05</p>
36			(c)	 <p>(Butyl hydrogenphthalate) 29.17</p>
37			(d)	 <p>(Phthalic acid) 29.17      (Glycolic acid) 29.18      (Butyl alcohol) 29.05</p> <p style="text-align: right;">(Butyl phthalyl butyl glycolate) 29.18</p>
38				 <p>(Acetic acid) 29.15      (Ethyl alcohol)</p> <p style="text-align: right;">(Ethyl acetate) 29.15</p>

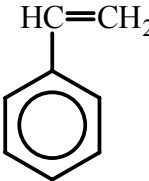
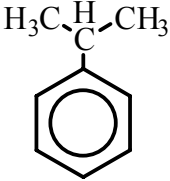
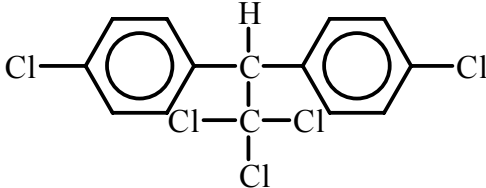
39			(2)	Salts		
40	346		(a)(i)	 (Methoxybenzoic acid) 29.18	NaOH (Sodium hydroxide)	 (Sodium methoxybenzoate) 29.18
41				 (Butyl hydrogen phthalate) 29.17	Cu(OH) <sub>2</sub> (Copper hydroxide)	 (n-Butyl copper phthalate) 29.17
42			(ii)	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NH (Diethylamine) 29.21	HCl (Hydrochloric acid)	 (Diethylamine hydrochloride) 29.21
43			(b)(i)	 (Acetic acid) 29.15	 (Aniline) 29.21	 (Aniline acetate) 29.21
44			(ii)	CH <sub>3</sub> NH <sub>2</sub> (Methylamine)	 (Phenoxyacetic acid)	

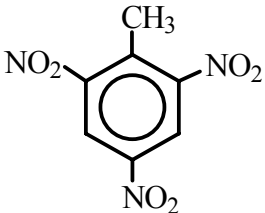
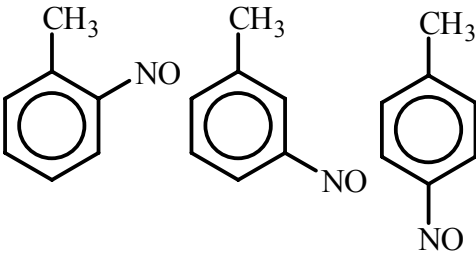
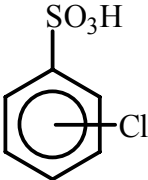
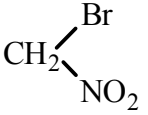
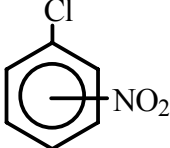
					29.21	29.18	(Methylamine phenoxyacetate) 29.21
45			(3)		Halides of carboxylic acid (Isobutyrylchloride) 29.15		$  \begin{array}{c}  \text{CH}_3 \text{ O} \\    \quad    \\  \text{CH}_3 - \text{C} - \text{C} - \text{Cl} \\    \\  \text{CH}_3  \end{array}  $

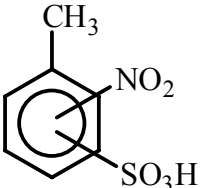
Row No.	Page	Heading	Paragraph		Name in HS-ENs	Chemical Structure
46	348	29.01			<b>ACYLIC HYDROCARBONS</b>	$C_nH_{2n+2}$
47-1	348		(A)	(3)	Pentane	$CH_3-CH_2-CH_2-CH_2-CH_3$
47-2	349		(B)	(1) (b)	Pentene	$CH_3-CH_2-CH_2-CH=CH_2$
47-3	350		(2)	(c)	Buta-1,3-diene	$CH_2=CH \cdot CH=CH_2$
48						
49	29.02				<b>CYCLIC HYDROCARBONS</b>	
50	351		(A)		<b>CYCLANES AND CYCLENES</b>	
51			(1)	(a)	Cyclopropane	
52				(b)	Cyclobutane	
52-1	351			(d)	Cyclohexane	
52-2			(3)	(b)	Cyclopentene	



53		(B)		CYCLOTERPENES	
54			(3)	Limonene	
55	352	(C)		AROMATIC HYDROCARBONS	
56			(1) (c)	o-xylene	
57				m-xylene	
58				p-xylene	

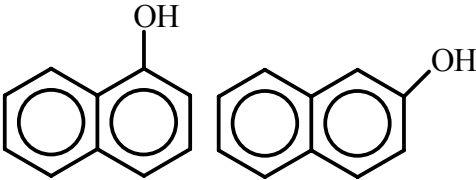
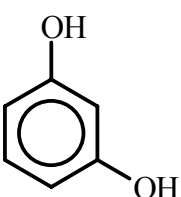
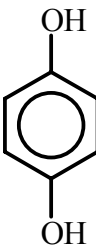
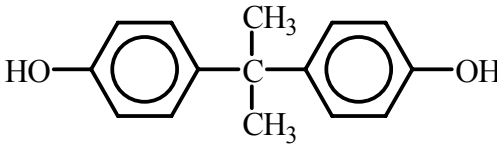
59			(d)(1)	styrene	
60			(3)	cumene	
61					
62	29.03			<b>HALOGENATED DERIVATIVES OF HYDROCARBONS</b>	
63		(F)		HALOGENATED DERIVATIVES OF AROMATIC HYDROCARBONS	
64	356		(6)	DDT	
65					
66	29.04			<b>SULPHONATED, NITRATED OR NITROSATED DERIVATIVES OF HYDROCARBONS, WHETHER OR NOT HALOGENATED</b>	
67		(A)		SULPHONATED DERIVATIVES	
68	357		(1) (a)	Ethylenesulphonic acid	$\text{CH}_2=\text{CHSO}_3\text{H}$
69		(B)		NITRATED DERIVATIVES	
70		(1) (d)		Trinitromethane	$\text{CH}(\text{NO}_2)_3$

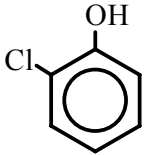
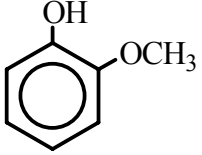
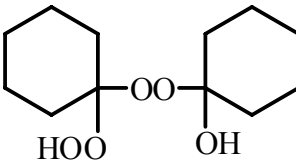
70-1			(2) (e)	2,4,6-Trinitrotoluene	
71		(C)		NITROSATED DERIVATIVES	
72	358		(2)	Nitrosotoluene	
73		(D)		SULPHOHALOGENATED DERIVATIVES	
74			(1)	Chlorobenzenesulphonic acid	
75		(E)		NITROHALOGENATED DERIVATIVES	
76			(4)	Bromonitromethane	
76-1			(6)	Chloronitrobenzene	
77		(F)		NITROSULPHONATED DERIVATIVES	

78			(2)	Nitrotoluenesulphonic acid	
79					
80	29.05			<b>ACYCLIC ALCOHOL AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
81		(B)		UNSATURATED MONOHYDRIC ALCOHOL	
82	360		(1)	Allyl alcohol	$\text{H}_2\text{C}=\text{CHCH}_2\text{OH}$
83		(C)		DIOLS AND OTHER POLYHYDRIC ALCOHOLS	
84	361		(II) (3)	Pentaerythritol	$\text{C}(\text{CH}_2\text{OH})_4$
85			(4)	Mannitol	$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{HOCH} \\    \\  \text{HOCH} \\    \\  \text{COH} \\    \\  \text{COH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $

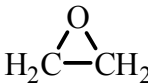
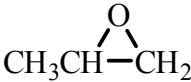
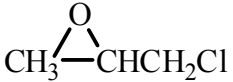

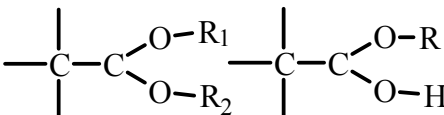
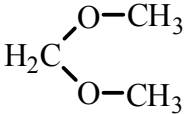
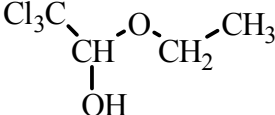
86			(5)	D-glucitol	$  \begin{array}{c}  \text{CH}_2\text{OH} \\    \\  \text{HCOH} \\    \\  \text{HOCH} \\    \\  \text{HCOH} \\    \\  \text{HCOH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $
87					
88	29.06			<b>CYCLIC ALCOHOLS AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
89		(A)		CYCLANIC, CYCLENIC OR CYCLOTERPENIC ALCOHOLS AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES	
90	362		(1)	Menthol	$  \begin{array}{c}  \text{CH}_3 \\    \\  \text{H}_2\text{C}-\text{CH}-\text{CH}_2 \\    \quad \quad   \\  \text{H}_2\text{C} \quad \quad \text{CHOH} \\    \\  \text{CH} \\    \\  \text{H}_3\text{C}-\text{CH}-\text{CH}_3  \end{array}  $

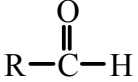
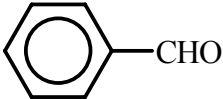
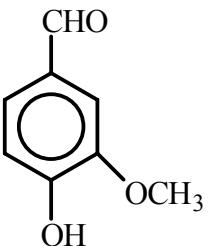
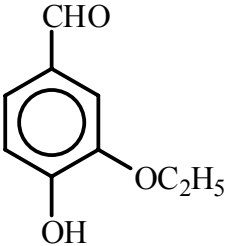
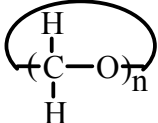
91			(5)	terpineol(s)	
91-1	363	(B)	(2)	2-Phenylethanol	
92					
93	<b>29.07</b>			<b>PHENOLS; PHENOL-ALCOHOLS</b>	
94		(A)		MONONUCLEAR MONOPHENOLS	
95	365		(2)	Cresol(s)	<p>(o-Cresol)      (m-Cresol)      (p-Cresol)</p>
96			(4)	Xylenol(s)	
97		(B)		POLYNUCLEAR MONOPHENOLS	

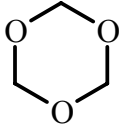
98		(1)	Naphthol(s)	 $(\alpha\text{-Naphthol})$ $(\beta\text{-Naphthol})$
99		(C)	POLYPHENOLS	
100		(1)	Resorcinol	
101		(2)	Hydroquinone (quinol)	
102		(3)	Bisphenol A	
103				
104	29.08		HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES OF PHENOLS OR PHENOL-ALCOHOLS	

104-1	366	(A)	(1)	o-Chlorophenol	
105				None	
106					
107	29.09			<b>ETHERS, ETHER-ALCOHOLS, ETHER-PHENOLS, ETHER-ALCOHOL-PHENOLS, ALCOHOL PEROXIDES, ETHER PEROXIDES, KETONE PEROXIDES (WHETHER OR NOT CHEMICALLY DEFINED), AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
107-1		(C)	(1)	GUaiacol	
108		(D)		ALCOHOL PEROXIDES, ETHER PEROXIDES AND KETONE PEROXIDES	
109	370			Ketone peroxides	
110					
111	29.10			<b>EPOXIDES, EPOXYALCOHOLS, EPOXYPHENOLS AND EPOXYETHERS, WITH A THREE-MEMBERED RING, AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	



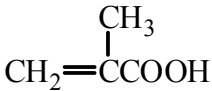
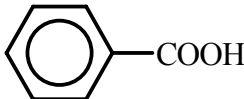
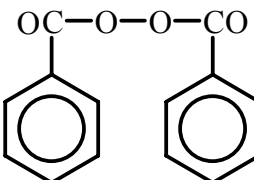
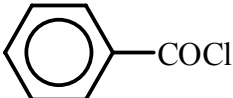
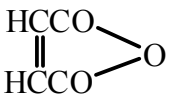
112	371	(1)	Oxirane	
113		(2)	Methyloxirane	
114		(B)	Halogenated, sulphonated, nitrated or nitrosated derivatives of epoxides	
115			Epichlorohydrin	
116			Oxetane (epoxide with a four-membered ring) (exclusion)	
117	29.11		<b>ACETALS AND HEMIACETALS, WHETHER OR NOT WITH OTHER OXYGEN FUNCTION, AND HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
118				
119		(A)	ACETALS AND HEMIACETALS	
120	372		Methylal	
121		(B)	HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES OF ACETALS AND HEMIACETALS	
122			Chloral alcoholate	

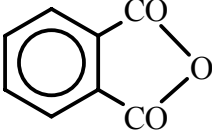
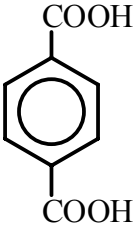
123						
124		29.12				<b>ALDEHYDES, WHETHER OR NOT WITH OTHER OXYGEN FUNCTION; CYCLIC POLYMERS OF ALDEHYDES; PARAFORMALDEHYDE</b>
125			(A)			ALDEHYDES 
126	374			(IV) (1)		Benzaldehyde 
127			(C)			ALDEHYDE-ETHERS, ALDEHYDE-PHENOLS AND ALDEHYDES WITH OTHER OXYGEN FUNCTION
128	375			(1)		Vanillin 
129				(2)		Ethyl vanillin 
130			(D)			CYCLIC POLYMERS OF ALDEHYDES 

131			(1)		Trioxan	
132			(3)		Metaldehyde	$(\text{CH}_3\text{CHO})_n \quad n=4-6$
133			(E)		PARAFORMALDEHYDES	$(\text{CH}_3\text{CHO})_n \quad n=4-6$
134	376				Paraformaldehyde	
135						
136		<b>29.13</b>			<b>HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES OF PRODUCTS OF HEADING No. 29.12</b>	
137						
138					None	
139						
140		<b>29.14</b>			<b>KETONES AND QUINONES, WHETHER OR NOT WITH OTHER OXYGEN FUNCTION, AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
141			(A)		KETONES	$\text{R}_1-\overset{\text{O}}{\parallel}{\text{C}}-\text{R}_2$
141-1			(A)	(1) (2)	Butanone	$\text{CH}_3-\overset{\text{H}}{\underset{\text{O}}{\parallel}}{\text{C}}-\text{C}_2\text{H}_5$

142	378		(II) (1)	Camphor	
143			(4)	Ionone(s)	<p>(<math>\alpha</math>-Ionone)                      (<math>\beta</math>-Ionone)</p>
144	379		(5)	Methyionone(s)	
145		(E)		QUINONES	$O=Ar=O$
146	380		(1)	Anthraquinone	
147					
148		S-CH. VII		<b>CARBOXYLIC ACIDS AND THEIR ANHYDRIDES,</b>	

				<b>HALIDES, PEROXIDES AND PEROXYACIDS AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
149	381	(A)		ACID ANHYDRIDES	$-\text{CO}\cdot\text{O}\cdot\text{CO}-$
150		(B)		ACID HALIDES	$\text{R}\cdot\text{COX}$
151		(C)		ACID PEROXIDES	$\text{RCO}-\text{O}-\text{O}-\text{OCR}$
152		(D)		PEROXYACIDS	$\text{R}\cdot\text{CO}\cdot\text{OH}$
153		(E)		ESTERS OF ACIDS	$\text{R}\cdot\text{CO}\cdot\text{OR}_1$
154	382	(F)		SALTS OF ACIDS	$\text{R}\cdot\text{CO}\cdot\text{OM}$
155					
156	<b>29.15</b>			<b>SATURATED ACYCLIC MONOCARBOXYLIC ACIDS AND THEIR ANHYDRIDES, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
157	384	(V)	(a)	n-Butyric acid	$\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$
158		(VI)	(a)	n-Valeric acid	$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$
159					
160	<b>29.16</b>			<b>UNSATURATED ACYCLIC MONOCARBOXYLIC ACIDS, CYCLIC MONOCARBOXYLIC ACIDS, THEIR ANHYDRIDES, PEROXIDES AND PEROXYACIDS; THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
161		(A)		UNSATURATED ACYCLIC MONOCARBOXYLIC ACIDS AND THEIR SALTS, ESTERS AND OTHER DERIVATIVES	
162	386		(1)	Acrylic acid	$\text{CH}_2=\text{CHCOOH}$

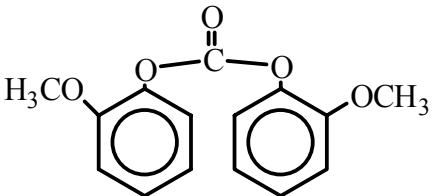

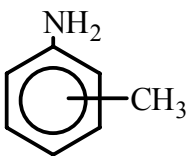
163			(2)	Methacrylic acid	
164			(C)	AROMATIC SATURATED MONOCARBOXYLIC ACIDS AND THEIR SALTS, ESTERS AND DERIVATIVES	
165	387		(1)	Benzoic acid	
166			(a)	Benzoyl peroxide	
167			(b)	Benzoyl chloride	
168					
169	29.17			<b>POLYCARBOXYLIC ACIDS, THEIR ANHYDRIDES, HALIDES, PEROXIDES AND PEROXYACIDS; THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
170			(A)	ACYCLIC POLYCARBOXYLIC ACIDS AND THEIR ESTERS, SALTS AND DERIVATIVES	
171	389		(3)	Azelaic acid	$\text{HOOC}(\text{CH}_2)_7\text{COOH}$
172			(4)	Sebacic acid	$\text{HOOC}(\text{CH}_2)_8\text{COOH}$
173			(5)	Maleic anhydride	
174			(C)	AROMATIC POLYCARBOXYLIC ACIDS AND THEIR	

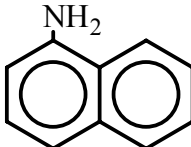
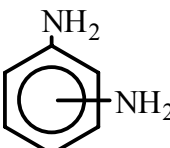
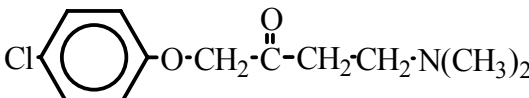
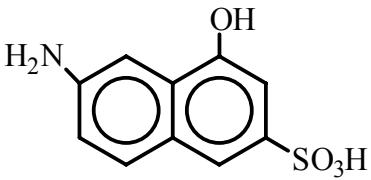
175			(1)	ESTERS, SALTS AND OTHER DERIVATIVES Phthalic anhydride	
176			(2)	Terephthalic acid	
177					
178	29.18			<b>CARBOXYLIC ACIDS WITH ADDITIONAL OXYGEN FUNCTION AND THEIR ANHYDRIDES, HALIDES, PEROXIDES AND PEROXYACIDS; THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
179		(A)		CARBOXYLIC ACIDS WITH ALCOHOL FUNCTION AND THEIR ESTERS, SALTS AND OTHER DERIVATIVES	
180	391		(3)	Citric acid	$\begin{array}{c} \text{CH}_2\text{COOH} \\   \\ \text{C}(\text{OH})\text{COOH} \\   \\ \text{CH}_2\text{COOH} \end{array}$

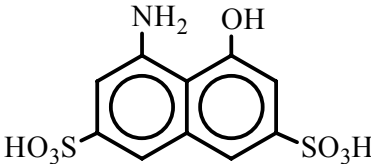
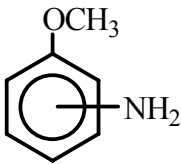
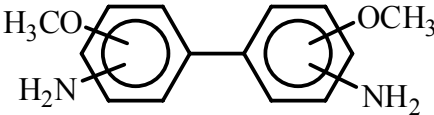
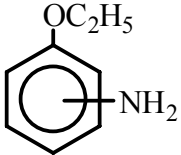
181		(4)	Gluconic acid	$  \begin{array}{c}  \text{COOH} \\    \\  \text{H} - \text{C} - \text{OH} \\    \\  \text{HO} - \text{C} - \text{H} \\    \\  \text{H} - \text{C} - \text{OH} \\    \\  \text{H} - \text{C} - \text{OH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $
182		(6)	Phenylglycolic acid	$  \begin{array}{c}  \text{COOH} \\    \\  \text{H} - \text{C} - \text{OH} \\    \\  \text{C}_6\text{H}_5  \end{array}  $
183		(B)	CARBOXYLIC ACIDS WITH PHENOL FUNCTION AND THEIR ESTERS, SALTS AND OTHER DERIVATIVES	
184		(1)	Salicylic acid	$  \begin{array}{c}  \text{COOH} \\    \\  \text{C}_6\text{H}_4 \\    \\  \text{OH}  \end{array}  $
185	29.19		PHOSPHORIC ESTERS AND THEIR SALTS, INCLUDING LACTOPHOSPHATES: THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES	$  \begin{array}{c}  \text{OR}_1 \\    \\  \text{R}_2\text{O} - \text{P} = \text{O} \\    \\  \text{OR}_3  \end{array}  $



187	393	(1)	Glycerophosphoric acid	$\begin{array}{c} \text{CH}_2\text{OH} \\   \\ \text{CHOH} \\   \\ \text{CH}_2\text{O}-\text{P} \begin{array}{l} \nearrow \text{OH} \\ \searrow \text{OH} \\ \text{=O} \end{array} \end{array}$
188		(3)	Tributyl phosphate	$\begin{array}{c} \text{C}_4\text{H}_9\text{O} \\ \diagdown \\ \text{C}_4\text{H}_9\text{O}-\text{P}=\text{O} \\ \diagup \\ \text{C}_4\text{H}_9\text{O} \end{array}$
188-1		(8)		$\begin{array}{c} \text{O} \\    \\ \text{H}_3\text{C}-\text{CH}-\text{C}-\text{O}-\text{PO}_3\text{Ca} \\   \\ \text{OH} \end{array}$
189				
190	29.20		<b>ESTERS OF INORGANIC ACIDS (EXCLUDING ESTERS OF HYDROGEN HALIDES) AND THEIR SALTS; THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES</b>	
191		(A)	Thiophosphoric esters	
192	394		Sodium O,O-dibutylthiophosphate	$\begin{array}{c} \text{S} \\    \\ \text{NaS}-\text{P} \begin{array}{l} \nearrow \text{O}-\text{C}_4\text{H}_9 \\ \searrow \text{O}-\text{C}_4\text{H}_9 \end{array} \end{array}$
193		(C)	Nitrous and nitric esters	
194			Methyl nitrite	CH <sub>3</sub> ONO
195			Ethyl nitrate	C <sub>2</sub> H <sub>3</sub> ONO
196			Nitroglycerol	$\begin{array}{c} \text{CH}_2\text{ONO}_2 \\   \\ \text{CHONO}_2 \\   \\ \text{CH}_2\text{ONO}_2 \end{array}$

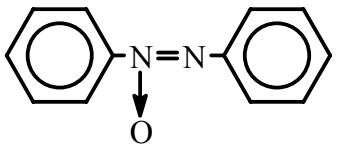
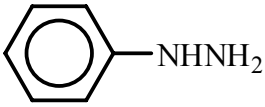
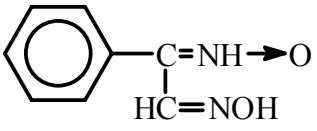
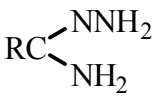
197		(D)		Carbonic or peroxocarbonic esters and their salts	
198		(1)		Diguaiaacyl carbonate	
199		(E)		Tetraethyl silicate	$\begin{array}{c} \text{C}_2\text{H}_5\text{O} \\ \text{C}_2\text{H}_5\text{O} \end{array} \text{Si} \begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{OC}_2\text{H}_5 \end{array}$
200					
201	29.21			<b>AMINE-FUNCTION COMPOUNDS</b>	$\text{R}-\text{NH}_2 \quad \text{R}-\text{NH}-\text{R} \quad \begin{array}{c} \text{R} \\ \diagdown \\ \text{N}-\text{R} \\ \diagup \\ \text{R} \end{array}$
201-1		(A)	(4)	Ethylamine	$\text{CH}_3-\text{CH}_2-\text{NH}_2$
202		(B)		ACYCLIC POLYAMINES AND THEIR DERIVATIVES; SALTS THEREOF	
203	396	(2)		Hexamethylenediamine	$\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{NH}_2$
204		(D)		AROMATIC MONOAMINES AND THEIR DERIVATIVES; SALTS THEREOF	
205	397	(1)		Aniline	
206		(2)		Toluidine(s)	

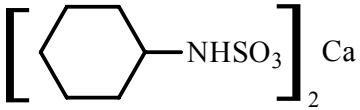
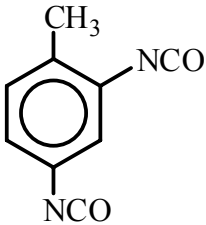

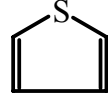
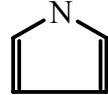
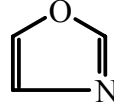
207			(4)	1-Naphthylamine	
208	-		-	N-nitrosodimethylamine	$(\text{CH}_3)_2\text{N}-\text{NO}$
209			(E)	AROMATIC POLYAMINES AND THEIR DERIVATIVES; SALTS THEREOF	
210			(1)	Phenylenediamine(s)	
211					
212	<b>29.22</b>			<b>OXYGEN-FUNCTION AMINO-COMPOUNDS</b>	
213			(A)	AMINO-ALCOHOLS, THEIR ETHERS AND ESTERS; SALTS THEREOF	
214	399		(1)	Monoethanolamine	$\text{H}_2\text{N}-\text{CH}_2\text{CH}_2\text{OH}$
215			(5)	Meclophenoxate	
216			(B)	AMINO-NAPHTHOLS AND OTHER AMINO-PHENOLS, THEIR ETHERS AND ESTERS; SALTS THEREOF	
217			(1)	Aminohydroxynaphthalenesulphonic acids	

217-1				*-amino-1-naphthol-3,6-disulphonic acid	
218			(a)	Anisidine(s)	
219			(b)	Dianisidine(s)	
220			(c)	Phenetidine(s)	
221			(D)	AMINO-ACIDS AND THEIR ESTERS; SALTS THEREOF	
222	400		(1)	Lysine	$\begin{array}{c} \text{NH}_2 \\   \\ \text{H}_2\text{N}(\text{CH}_2)_4\text{C}-\text{COOH} \\   \\ \text{H} \end{array}$
223			(2)	Glutamic acid	$\text{HOOC} \cdot (\text{CH}_2)_2 \text{CHNH}_2 \cdot \text{COOH}$
224					
225	<b>29.23</b>			<b>QUATERNARY AMMONIUM SALTS AND HYDROXIDES; LECITHINS AND OTHER PHOSPHOAMINOLIPIDS</b>	
226	401		(1)	Choline	$[(\text{CH}_3)_3\text{N}^+\text{CH}_2\text{CH}_2\text{OOCCH}_3]^\ominus\text{OH}$

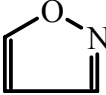
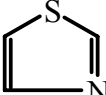
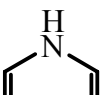
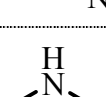
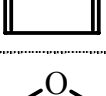





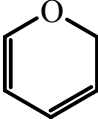
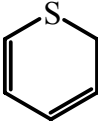
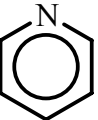
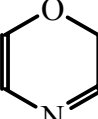
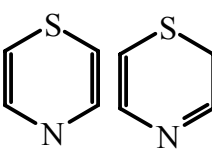
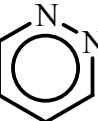
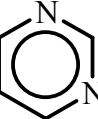
238	404		(1) (a)	Diphenylguanidine	
239			(3)	Imino ethers	
240					
241	<b>29.26</b>			<b>NITRILE-FUNCTION COMPOUNDS</b>	
242		(1)		Acrylonitrile	$\text{CH}_2=\text{CHCN}$
243		(2)		1-Cyanoguanidine	
244					
245	<b>29.27</b>			<b>DIAZO-, AZO, OR AZOXY-COMPOUNDS</b>	
246		(A)		DIAZO-COMPOUNDS	
247	405		(1) (a)	Benzenediazonium chloride	
248		(B)		AZO-COMPOUNDS	$\text{R}_1\text{N}=\text{NR}_2$
249		(1)		Azobenzene	

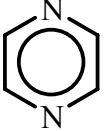
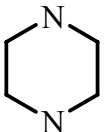
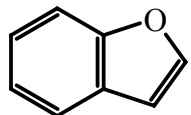
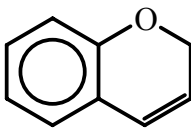
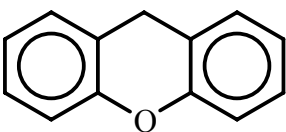
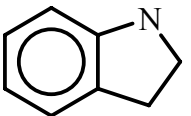
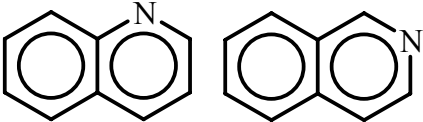
250		(C)		AZOXY-COMPOUNDS	$R_1-N_2O-R_2$
251	406		(1)	Azoxybenzene	
252					
253	<b>29.28</b>			<b>ORGANIC DERIVATIVES OF HYDRAZINE OF HYDROXYLAMINE</b>	
254		(1)		Phenylhydrazine	
255		(11)		Phenylglyoxime	
256	407	(24)		Hydrazides of carboxylic acids	$RCONHNH_2$
257		(25)		Hydrazidines	
258					
259	<b>29.29</b>			<b>COMPOUNDS WITH OTHER NITROGEN FUNCTION</b>	
260		(1)		Isocyanates	$MNCO$
261		(2)		Isocyanides (carbylamines)	$RNC$
262		(3)		Azides of carboxylic acids	$RCON_3$

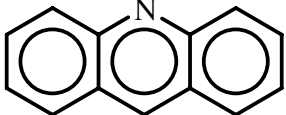
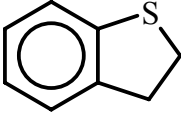
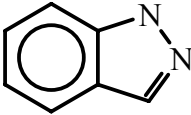
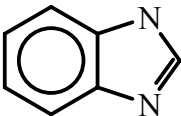
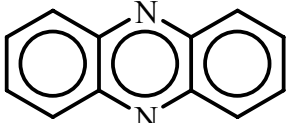
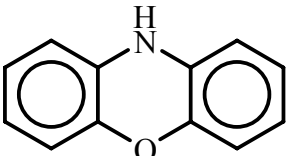
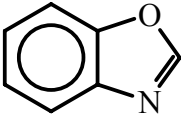
263		(5)		Calcium cyclamate	
264	-	-		Toluene-2,4-diisocyanate	
265					
266	<b>S-Ch. X</b>			<b>ORGANO-INORGANIC COMPOUNDS, HETEROCYCLIC COMPOUNDS, NUCLEIC ACIDS AND THEIR SALTS, AND SULPHONAMIDES</b>	
267		(A)		FIVE-MEMBERED RINGS	
268	408		(1) (a)	Furan	
269			(b)	Thiophen	
270			(c)	Pyrrole	
271			(2) (a)	Oxazole	

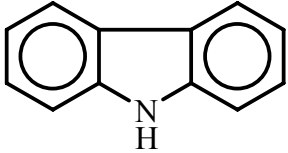
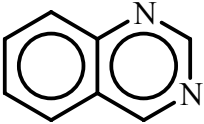
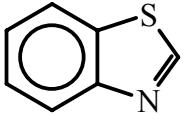
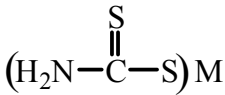
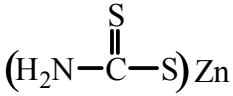
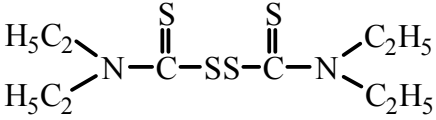


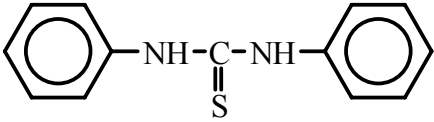
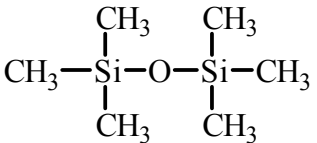
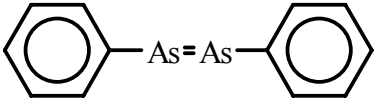
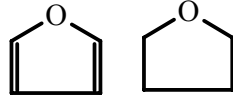
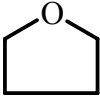
272			(a)	Isoxazole	
273			(b)	Thiazole	
274			(c)	Imidazole	
275			(c)	Pyrazole	
276		(3)	(a)	Furazan	
277			(b)	Triazole	
278			(c)	Tetrazole	
279		(B)		SIX-MEMBERED RINGS	

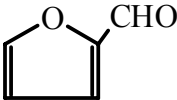
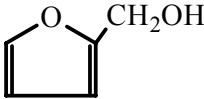
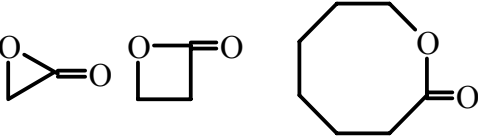
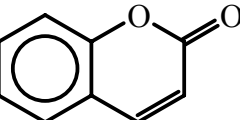
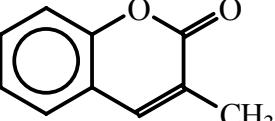
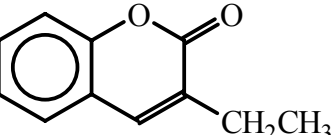
280		(1)	(a)	Pyran	
281			(b)	Thiin	
282			(c)	Pyridine	
283		(2)	(a)	Oxazine	
284			(b)	Thiazine	
285			(c)	Pyridazine	
286			(c)	Pyrimidine	

287			(c)	Pyrazine	
288			(c)	Piperazine	
289		(C)		OTHER MORE COMPLEX HETEROCYCLIC COMPOUNDS	
290	409		(a)	Coumarone	
291			(b)	Benzopyran	
292			(c)	Xanthene	
293			(d)	Indole	
294			(e)	Quinoline and isoquinoline	

295		(f)	Acridine	
296		(g)	Benzothiophene (Thionaphthene)	
297		(h)	Indazole	
298		(ij)	Benzimidazole	
299		(k)	Phenazine	
300		(l)	Phenoxazine	
301		(m)	Benzoxazole	

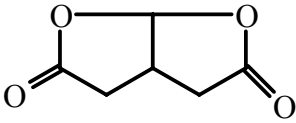
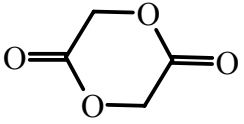
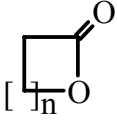
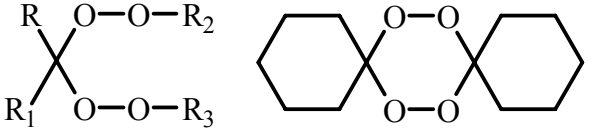
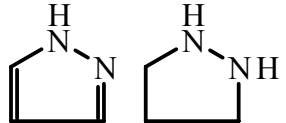
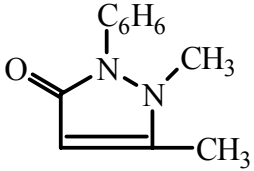
302			(n)	Carbazole	
303			(o)	Quinazoline	
304			(p)	Benzothiazole	
305					
306	29.30			<b>ORGANIC-SULPHUR COMPOUNDS</b>	C—S
307		(A)		DITHIOCARBONATES (XANTHATES)	CS(OR)(SR') R'=Metal
308		(1)		Sodium ethyldithiocarbonate	C <sub>2</sub> H <sub>5</sub> O—CS <sub>2</sub> Na
309	410	(B)		THIOCARBAMATES, DITHIOCARBAMATES AND THIURAM SULPHIDES	
310		(2)		Dithiocarbamate	
310-1				Zinc dibutyldithiocarbamate	
311		(3)		Tetraethylthiuram disulphide	

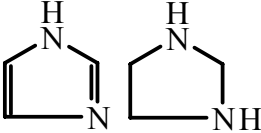
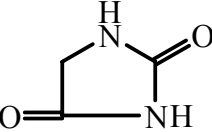
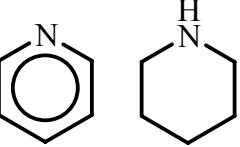

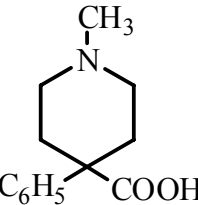
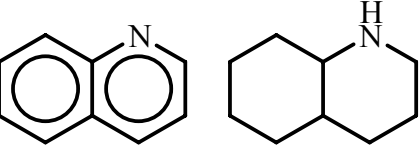
312		(C)		SULPHIDES (OR THIOETHERS)	R.S.R <sub>1</sub>
313			(1)	Methionine	$\text{CH}_3\text{SCH}_2\text{CH}_2\underset{\text{NH}_2}{\underset{\parallel}{\text{C}}}\text{COOH}$
314		(D)		THIOAMIDES	
315			(2)	Thiocarbanilide	
316					
317	<b>29.31</b>			<b>OTHER ORGANO-INORGANIC COMPOUNDS</b>	
318		(3)		Organo-silicon compounds	C-Si
319	412			Hexamethyldisiloxane	
320		(4)		Iron Carbonyl	Fe(CO) <sub>5</sub>
320-1		(5)	(e)	Arsenobenzene	
321					
322	<b>29.32</b>			<b>HETEROCYCLIC COMPOUNDS WITH OXYGEN HETERO-ATOM(S) ONLY</b>	
323		(A)		Compounds containing an unfused furan ring (whether or not hydrogenated) in the structure	
324	413		(1)	Tetrahydrofuran	

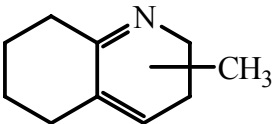
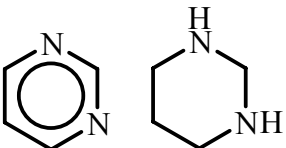
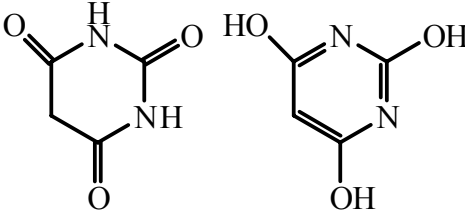
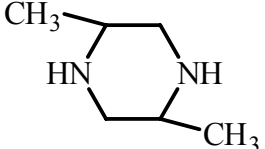
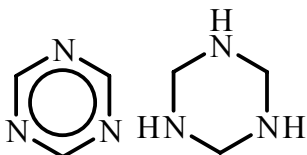
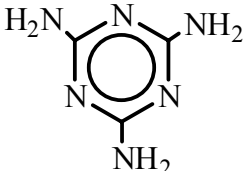
325		(2)	2-Furaldehyde	
326		(3)	Furfuryl alcohol	
327		(B)	Lactones	
328		(a)	Coumarin	
329		(b)	Methylcoumarins	
330		(c)	Ethylcoumarins	

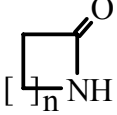
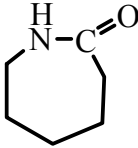
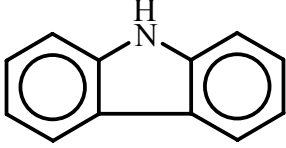
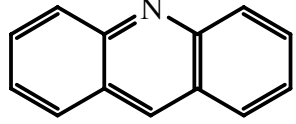
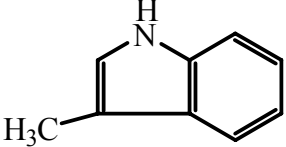
331	414		(p)	Phenolphthalein	
332			(C)	Other heterocyclic compounds with oxygen hetero-atom(s) only	
333			(5)	Safrole	$\text{CH}_2=\text{CH}\cdot\text{CH}_2$
334			(6)	Isosafrole	$\text{CH}_3-\text{CH}=\text{CH}$
335			(7)	Piperonal	
336			(10)	1-(1,3-Benzodioxol-5-yl)propan-2-one	

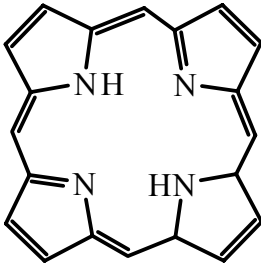
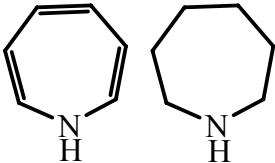
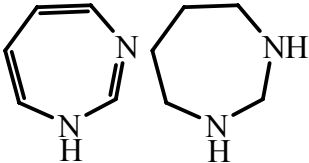
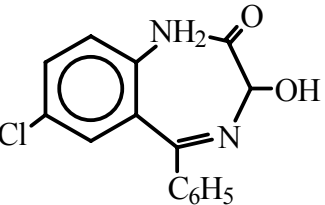



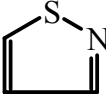
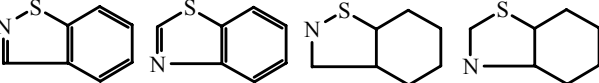
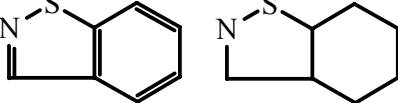
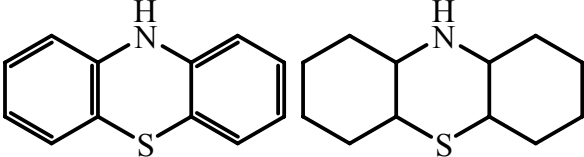
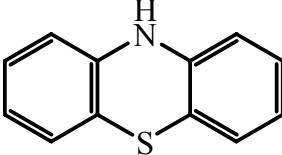
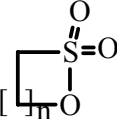
337				Example for esters forming part of two rings	
338				Example for dilactone	
339				Internal Hemiacetals	
340				Ketone peroxides (exclusion) - see.29.09	
341					
342	29.33			<b>HETEROCYCLIC COMPOUNDS WITH NITROGEN HETERO-ATOMS ONLY</b>	
343		(A)		Compounds containing an unfused pyrazole ring (whether or not hydrogenated) in the structure	
344	416		(1)	Phenazone	

345		(B)		Compounds containing an unfused imidazole ring (whether or not hydrogenated) in the structure	
346		(1)		Hydantoin	
347		(C)		Compounds containing an unfused pyridine ring (whether or not hydrogenated) in the structure	
348		(2)		Pyridine derivatives	
349	417		(a)	Methylpyridine	
350		(3)		Piperidine derivatives	
351			(a)	1-Methyl-4-phenylpiperidine carboxylic acid	
352		(D)		Compounds containing a quinoline or isoquinoline ring-system (whether or not hydrogenated), not further fused	

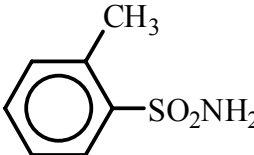
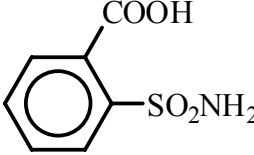
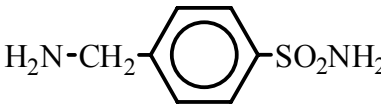
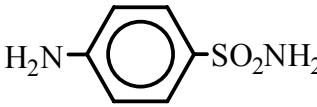
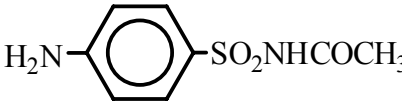
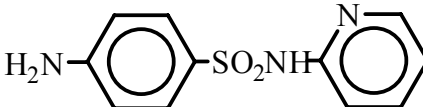
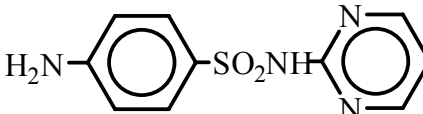
353			(4)	Tetrahydromethylquinoline	
354			(E)	Compounds containing a pyrimidine ring (whether or not hydrogenated) or piperazine ring in the structure	
355			(1)	Malonylurea	
356	418		(4)	2,5-Dimethylpiperazine	
357			(F)	Compounds containing an unfused triazine ring (whether or not hydrogenated) in the structure	
358			(1)	Melamine	

359		(G)		Lactam	
360			(1)	6-Hexanelactam	
361		(H)		Other heterocyclic compounds with nitrogen hetero-atom(s) only	
362	418a		(1)	Carbazole	
363			(2)	Acridine	
364	419		(4)	$\beta$ -Methylindole	

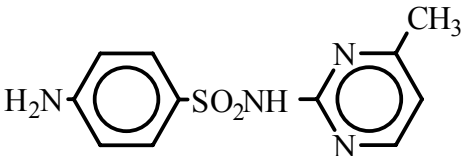
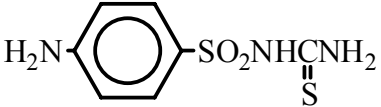
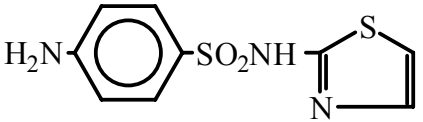
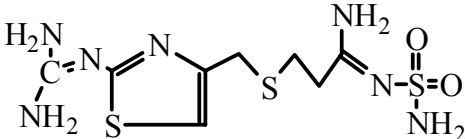
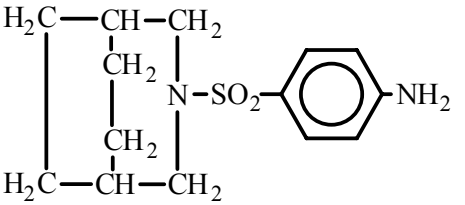
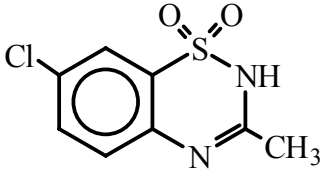
365		(8)	Porphyrins	
366		-	Monoazepines (whether or not hydrogenated)	
367		-	Diazepines (whether or not hydrogenated)	
367-1			Oxazepam	
368				
369	29.34		<b>NUCLEIC ACIDS AND THEIR SALT; OTHER HETEROCYCLIC COMPOUNDS</b>	
370		(A)	Compounds containing an unfused thiazole ring (whether or not hydrogenated)	

371	420				1,2-thiazole	
372		(B)			Compounds containing a benzothiazole ring-system (whether or not hydrogenated), not further fused	
373					Benzothiazole (whether or not hydrogenated)	
374		(C)			Compounds containing a phenothiazine ring-system (whether or not hydrogenated), not further fused	
375					Phenothiazine	
376		(D)			Other heterocyclic compounds	
377			(1)		Sulfones	

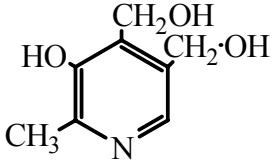
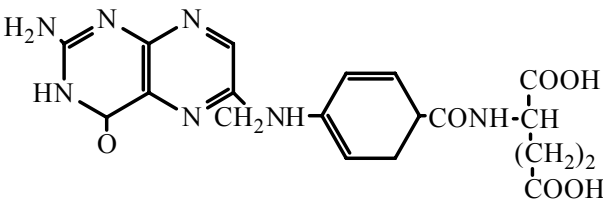
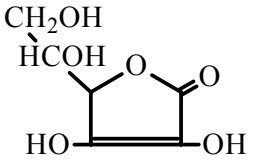
378			(a)	Phenolsulphonephthalein	
379			(2)	Sultams	
380				Naphthosultam-2,4-disulphonic acid	
381			(4)	Furazolidone	
382					
383	29.35			<b>SULPHONAMIDES</b>	

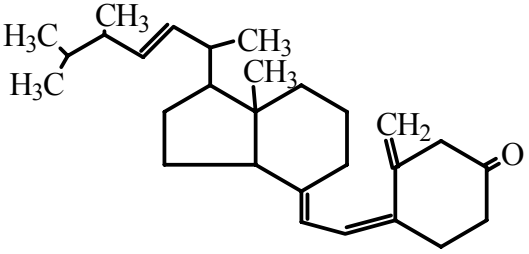
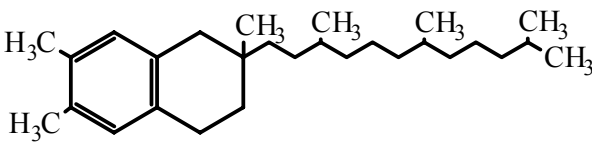
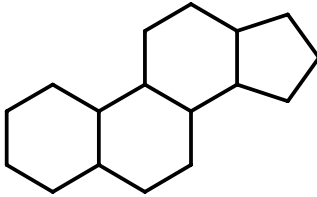
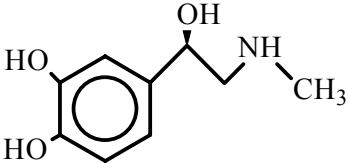
384	420a	(1)		o-Toluenesulphonamide	
385	421	(2)		o-Sulphamoylbenzoic acid	
386		(3)		p-Sulphamoylbenzylamine	
387		(4)		p-Aminobenzenesulphonamide	
388		(5)		p-Aminobenzenesulphonacetamide	
389		(6)		Sulphapyridine	
390		(7)		Sulphadiazine	



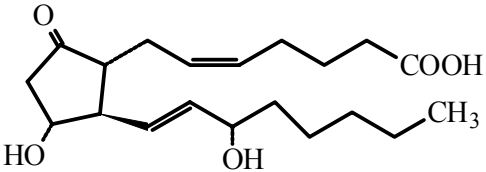
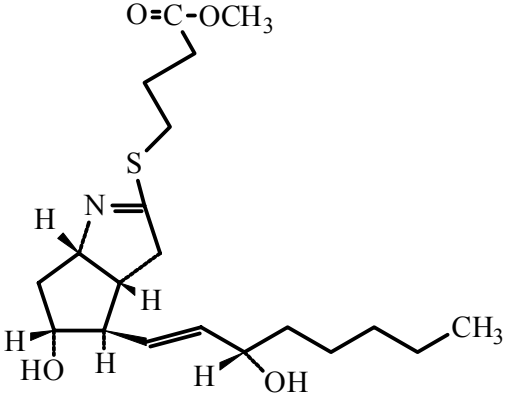
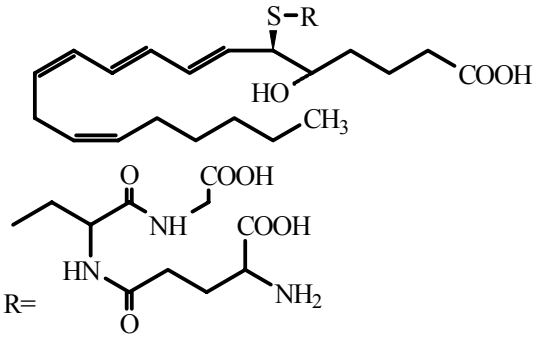
391		(8)		Sulphamerazine	
392		(9)		Sulphathiourea	
393		(10)		Sulphathiazole	
394					
395	-	-		Famotidine (Not classified as sulphonamides)	
396	-	-		Azabon (Not classified as sulphonamides)	
397	-	-		Diazoxide (Not classified as sulphonamides)	
398					
399	29.36			PROVITAMINS AND VITAMINS, NATURAL OR	

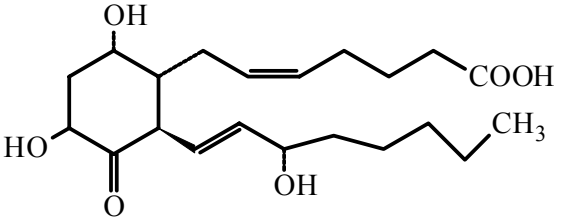
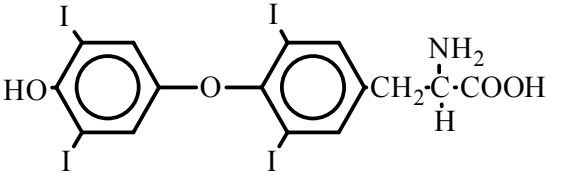
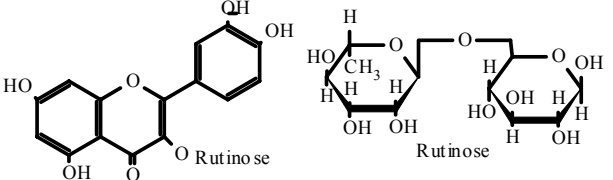
				REPRODUCED BY SYNTHESIS (INCLUDING NATURAL CONCENTRATES), DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS, AND INTERMIXTURES OF THE FOREGOING, WHETHER OR NOT IN ANY SOLVENT	
400		(B)		VITAMINS A AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
401	423	(1)		Vitamin A (retinol)	
402		(C)		VITAMIN B1 AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
403	424	(1)		Vitamin B1 (thiamine)	
404		(D)		VITAMIN B2 AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
405		(1)		Vitamin B2 (riboflavin)	

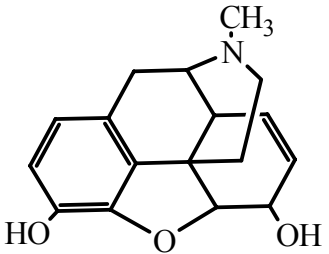
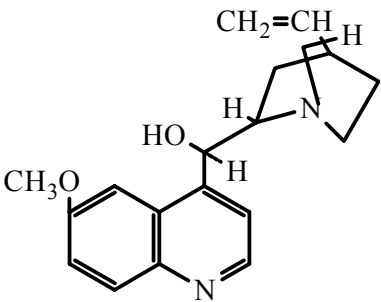
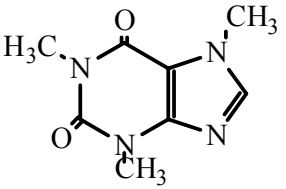
406		(E)		D- OR DL- PANTOTHENIC ACID (ALSO KNOWN AS VITAMIN B3 OR VITAMIN B5) AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
407	425		(1)	Pantothenic acid	$\text{HOCH}_2\overset{\text{CH}_3}{\underset{\text{CH}_3}{\text{C}}}\text{CH}(\text{OH})\text{CONHCH}_2\text{CH}_2\text{COOH}$
408		(F)		VITAMIN B6 AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
409			(1)	Pyridoxine	
410		(G)		VITAMIN B9 AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
411	426		(2)	Folinic acid	
412		(Ij)		VITAMIN C AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
413			(1)	Ascorbic acid	
414		(K)		VITAMINS D AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	

415	427		(1)	(a)	Calciferol	
416			(L)		VITAMIN E AND DERIVATIVES THEREOF USED PRIMARILY AS VITAMINS	
417			(1)		$\alpha$ -Tocopherol	
418		29.37			<b>HORMONES, NATURAL OR REPRODUCED BY SYNTHESIS; DERIVATIVES THEREOF, USED PRIMARILY AS HORMONES; OTHER STEROID USED PRIMARILY AS HORMONES</b>	
420	429		-		Gonane	
420-1	430		(I)	(B) (1)	Epinephrine	

420-2	431	(III)	(C)	Progesterone	
421	433			Cortisone	
421-1	434			Estrone	
421-2	437			Testosterone	

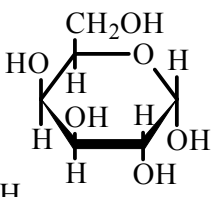
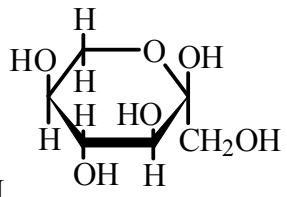
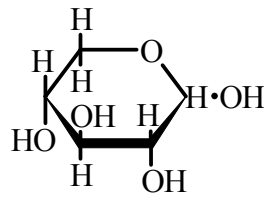
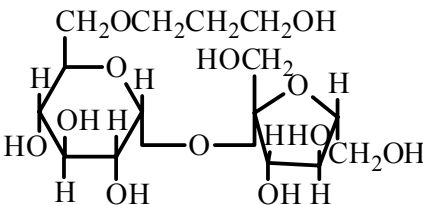
421-3	-			Prostaglandin E1	 <p>The structure shows a five-membered cyclopentane ring with a ketone group (=O) at the top position and a hydroxyl group (-OH) at the bottom-left position. Two side chains are attached to the ring: one at the top-right position containing a double bond and a terminal carboxylic acid group (-COOH), and another at the bottom-right position containing a double bond, a hydroxyl group (-OH), and a terminal methyl group (-CH<sub>3</sub>).</p>
421-4	-			Tilsuprost	 <p>The structure features a bicyclic core consisting of a five-membered ring fused to a six-membered ring. The five-membered ring has a nitrogen atom (=N-H) and a sulfur atom (-S-) attached. The sulfur atom is linked to a propyl chain that terminates in a methyl ester group (-COOCH<sub>3</sub>). The six-membered ring has two hydroxyl groups (-OH) and a side chain with a double bond, a hydroxyl group (-OH), and a terminal methyl group (-CH<sub>3</sub>).</p>
421-5	-			Leukotriene C4	 <p>The structure shows a long-chain polyunsaturated hydrocarbon with four double bonds. At one end, there is a carboxylic acid group (-COOH) and a sulfur atom (-S-R) attached to the chain. At the other end, there is a methyl group (-CH<sub>3</sub>). A hydroxyl group (-OH) is also present on the chain. Below the main structure, the R group is defined as a side chain: R = -NH-C(=O)-CH(CH<sub>3</sub>)-NH-C(=O)-CH(CH<sub>3</sub>)-NH<sub>2</sub>.</p>

421-6	-			Thromboxane B2	
421-7	-			Levothroxine	
422					
423	29.38			<b>GLYCOSIDES, NATURAL OR REPRODUCED BY SYNTHESIS, AND THEIR SALTS, ETHERS, ESTERS AND OTHER DERIVATIVES</b>	
424	439	(1)		Rutoside	
425					
426	29.39			<b>VEGETABLE ALKALOIDS, NATURAL OR REPRODUCED BY SYNTHESIS, AND THEIR SALTS, ETHERS, ESTERS AND OTHER DERIVATIVES</b>	
427		(A)		ALKALOIDS OF OPIUM AND THEIR DERIVATIVES; SALTS THEREOF	

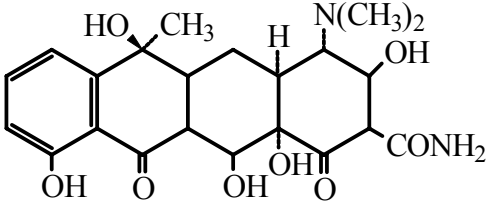
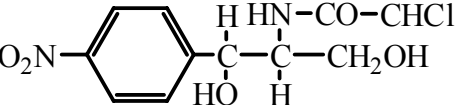
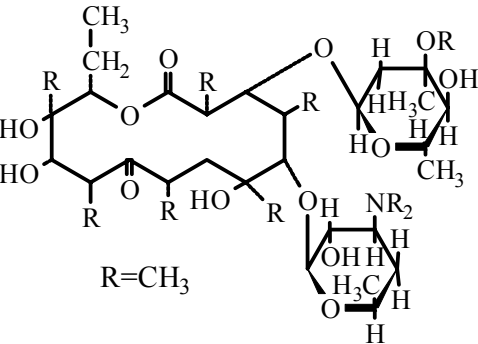
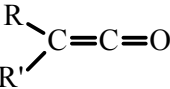
428	440a		(1)	Morphine	
429			(B)	ALKALOIDS OF CINCHONA AND THEIR DERIVATIVES; SALTS THEREOF	
430	441		(1)	Quinine	
431			(C)	CAFFEINE AND ITS SALTS	
432				Caffeine	
433			(D)	EPHEDRINES AND THEIR SALTS	



434			(1)	Ephedrine	
435			(E)	THEOPHYLLINE AND AMINOPHYLLINE (THEOPHYLLINE-ETHYLENEDIAMINE) AND THEIR DERIVATIVES; SALTS THEREOF	
436	442			Theophylline	
437			(G)	NICOTINE AND ITS SALTS	
438				Nicotine	
439					
440		29.40		<b>SUGARS, CHEMICALLY PURE, OTHER THAN SUCROSE, LACTOSE, MALTOSE, GLUCOSE AND FRUCTOSE; SUGAR ETHERS AND SUGAR ESTERS, AND THEIR SALTS, OTHER THAN PRODUCTS OF HEADING No.29.37, 29.38 or 29.39</b>	
441			(A)	SUGARS, CHEMICALLY PURE	

442	444	(1)	Galactose	$  \begin{array}{c}  \text{CHO} \\    \\  \text{HCOH} \\    \\  \text{HOCH} \\    \\  \text{HOCH} \\    \\  \text{HCOH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ 
443		(2)	Sorbose (sorbenose)	$  \begin{array}{c}  \text{CHO} \\    \\  \text{C=O} \\    \\  \text{HOCH} \\    \\  \text{HCOH} \\    \\  \text{HOCH} \\    \\  \text{CH}_2\text{OH}  \end{array}  $ 
444		(3)	Xylose	$  \begin{array}{c}  \text{CHO} \\    \\  \text{HCOH} \\    \\  \text{HOCH} \\    \\  \text{HCOH} \\    \\  \text{CH}_2\text{O}  \end{array}  $ 
445		(B)	SUGAR ETHERS AND ESTERS, AND THEIR SALTS	
446		(1)	Hydroxypropyl sucrose	

447	444a		(7)	Tribenoside	<p>RO-CH<sub>2</sub> RO-CH H OH R = CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub></p>
448					
449	29.41			<b>ANTIBIOTICS</b>	
450					
451	445		(1)	Penicillin	<p>RONH H H S CH<sub>3</sub> O N COOH H CH<sub>3</sub></p>
452			(2)	Streptomycin	<p>NH NH H<sub>2</sub>CNH H NHCNH<sub>2</sub> OH H H H HO OH H O H<sub>3</sub>C CHO H OHO H O NHCH<sub>3</sub> HOCH<sub>2</sub> H H OH</p>

453		(3)		Tetracycline	
454		(4)		Chloramphenicol	
455		(5)		Erythromycin A	
456					
457	<b>29.42</b>			<b>OTHER ORGANIC COMPOUNDS</b>	
458	446	(1)		Ketene	
458-1		(2)		Copper acetoarsenite	$\text{Cu}(\text{CH}_3\text{CO}_2)_2 \cdot 3\text{Cu}(\text{AsO}_2)_2$
459		(3)		Boron trifluoride complexes with diethyl ether	$(\text{C}_2\text{H}_5)_2\text{O} \cdot \text{BF}_3$